AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-079

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-079.01
ARISS Contact-Fair Lawn, NJ

AMSAT News Service Bulletin 079.01
  From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.01

This past Monday, March 14, 2011, The Fair Lawn ARC conducted a successful ARISS Contact. It was the fruition of a few years of applications, paperwork and sweat equity. After initial instructions giving specific details, the last weekend a complete change of Astronaut and frequency of OPS was dictated. The operating group quickly made necessary changes.

The school system involved was thrilled after hearing Paulo Nespoli, IZ0JPA, calling back from NA1SS after our student Zack, KC2RSS, gave the initial calls. Everyone breathed a sigh of relief after that. All questions were answered by a gracious Paulo on the ISS and applause was given after the contact by the 200 plus people that attended the contact. Everyone involved felt a great deal of pride and accomplishment. ARISS has made it a smooth ride for all that decides to get involved and show local school officials what is involved and the scientific aspects of making such a contact. Newspaper coverage can be found on-line at:
http://www.northjersey.com/news/031411_Fair_Lawn_students_talk_to_orbiting_astronaut.html

[ANS thanks Dee, NB2F, for the above information]

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SB SAT @ AMSAT $ANS-079.02
BJ8TA Amateur Radio EME & Satellites Expedition

AMSAT News Service Bulletin 079.02
From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.02

AMSAT-China Chief Executive Officer Alan Kung, BA1DU reports that AMSAT-China is organizing an expedition to southwest China for EME experiments and amateur satellite communications. The expedition team will use special technology experiments amateur radio call sign BJ8TA.

BJ8TA team will be active on the available satellites, including AO-51, VO-52, AO-7, AO-27, FO-29, SO-50, SO-67 etc, during the expedition period.

Initially the team will operate from Shangri-La County(NL97ut), Yunnan Province of China during March 20-23. This will mark the first time amateur radio EME communications in grid NL, the communications scheme on the 6m, 2m and 70cm bands, using Yagi antennas with PA of one kilowatt.

And then, the team will move to Yunnan Astronomical Observatory of the Chinese Academy of Sciences in Chengjiang county, it is located in grid OL14kq. The EME communications will use the 11 meter diameter radio telescope antenna with gain of 29dbi on the 70cm band. These operations will be from March 28 to April 1.

BJ8TA Amateur Radio EME & Satellites Expedition is supported by the Bureau of Radio Regulation of China and Yunnan Astronomical Observatory of the Chinese Academy of Sciences.

BJ8TA team members:

VIP operators:
Xie Feibo, BA1XIE, Director General of the Bureau of Radio Regulation of China.
Yin Hu, BD1AZ, Land Service Department of the Bureau of Radio Regulation of China.
Chen Ping, BA1HAM, Deputy Secretary General of the Amateur Radio Committee of Chinese Radio Association.
Li Jian, Land Service Department of the Bureau of Radio Regulation of China.

Team leader: Fan, BA1EO
Operators: Alan, BA1DU; Wang, BA4RN; Wang, BH4REQ; Zhao, BH4RLO; Jin, BA4TA; Michael, BD5RV;and Chen, BA7CK
Logistics: Zhu, BG5FCB; Zhang, BG8SF
QSL manager: Alan, BA1DU (P.O.Box 8091, Beijing 100088, CHINA).

[ANS thanks Alan Kung, BA1DU for the above information]

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SB SAT @ AMSAT $ANS-079.03
2M1EUB/P Satellite Operation Begins from Scotland

AMSAT News Service Bulletin 079.03

From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.03

Paul, 2E1EUB says he will begin portable satellite operation from Scotland as 2M1EUB/P beginning on March 20 and continuing for one week.

Paul has spent the winter preparing his van for operating which he plans to drive up into the mountains weather permitting.

Paul's information for both callsigns can be found at http://www.qrz.com.

[ANS thanks Paul, 2E1EUB for the above information]

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SB SAT @ AMSAT $ANS-079.04
AMSAT India March Newsletter Available for Download

AMSAT News Service Bulletin 079.04
From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.04

AMSAT INDIA Secretary Nitin, VU3TYG announced this week that AMSAT INDIA's March 2011 Newsletter is available for download at: http://amsatindia.org/Newsletter/AMSATINDIA-News-March_2011.pdf

Content of the March Newsletter include:
1. Update on the Technical talk held on February 20th 2011
2. Update on the Cubesat Transponder project by AMSAT INDIA.
3. Report by Anantha - VU3GPF on the scheduled contact with ISS with his school in India.
4. VU4PB - DXpedition by Amateur Radio Society of India (ARSI) to Andaman and Nicobar.
5. News from AMSAT Organizations worldwide.

Archives of previous newsletters are also available on-line at: http://www.amsatindia.org/Newsletter.

[ANS thanks Nitin, VU3TYG for the above information]

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SB SAT @ AMSAT $ANS-079.05
ARISS Status - 14 March 2011

AMSAT News Service Bulletin 079.05
From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.05

Amateur Radio on the International Space Station (ARISS) Status Report
March 14, 2011

1. School Contacts

The March 14Fair Lawn High School, Fair Lawn, New Jersey contact was a great success and the contact on Monday was rebroadcast on Echo Link. The contact was integrated into the curriculum covering space and earth science as well as human anatomy and physiology. The link to local newspaper coverage is: http://www.northjersey.com/news/031411_Fair_Lawn_students_talk_to_orbiting_astronaut.html

There were over 200 people in attendance to hear Paulo Nespoli graciously answered the questions of the various age students from 2nd, 5th & High School levels. The Fair Lawn ARC was involved along with local AMSAT Volunteers to assure the contact went smoothly and without any last minute Murphy adventures.

Students from five schools in Plock and Liszyno, Poland jointly participated in an Amateur Radio on the International Space Station (ARISS)

contact on Thursday, March 17 at 09:21 UTC. Through this activity and related studies, students will learn about space and space exploration, communication and technology. The Scout Amateur Radio Club SP5ZBA will handle the radio connection for the contact.

An ARISS contact has been accomplished for Luitpold-Gymnasium Muenchen, Munich, Bavaria, Germany on Thursday, March 17 at 14:05 UTC. Preparations for their contact, seventeen year olds took the course "Spaceflight" were joined by children from lower grades to learn about aeronautics and scientific work. The ESA ISS Education Kit was used in their

studies and the German amateur radio organization (DARC) gave the youth a comprehensive introduction to amateur radio on the ISS.

ISIP Cossar/Da Vinci, Gorizia, Italy was realized for an Amateur Radio on the International Space Station (ARISS) contact on Saturday, March 19

at 08:38 UTC. The radio contact, the telecommunication equipment installed and used in the school as well as the collaboration with a local group of amateur radio operators will offer telecommunications students the chance to test instruments able to connect to listening posts 300 km

away.

2. Recent ARISS Contacts

On Tuesday, March 8, youth from ICS "Marco D'oggiono", Oggiono, Italy spoke with Paolo Nespoli, IZ0JPA via an Amateur Radio on the International
Space Station (ARISS) contact. The astronaut fielded 13 questions before

the ISS went over the horizon. Students wanted to know for example, what

one needs to do to become an astronaut and what type of research is performed on the ISS. The contact was the featured event of lessons emphasiz-
ing astronautics, astronomy, radio techniques and English. Nearly 400 students and teachers and about 100 visitors were present for the contact.
Regional television, local media and newspapers covered the event.

An ARISS contact took place between youth attending Schulhaus Dorf in Richterswil, Switzerland and on-orbit astronaut Cady Coleman, KC5ZTH on Tuesday, March 8. Coleman answered the 22 questions prepared for her with time left to exchange greetings. The contact was the culmination

of science lessons on space and gave the students the opportunity to prac-
tice their English.

Students from "Francesco d'Assisi" Middle School and "Don Lorenzo Milani"
Primary School in Modugno, Bari, Italy, experienced an Amateur Radio on the International Space Station (ARISS) contact on Saturday, March 12. The event was held at "Cittadella Mediterranea della Scienza" in Bari where an audience of approximately 150 students, teachers, visitors and media were assembled.

Astronaut Paolo Nespoli, IZ0JPA on the ISS spoke with the youth over 2 consecutive passes, answering 30 questions about what it is like to live

in space. He answered a final question concerning the earthquake in Japan
and expressed his concern for the Japanese. Regional television, local media and newspapers covered the event.

On Saturday, March 12, Shri Krishna Vithyaalayam Matric School in Pollachi, India participated in an Amateur Radio on the International Space Station (ARISS) contact with ISS astronaut Cady Coleman, KC5ZTH via telebridge station IK1SLD in Italy. Twelve questions were asked and answered. The contact was integrated into science lessons about astronomy,
satellites and the ISS and included radio classes taught by the Anamalai

Amateur Radio Club located at the school.

3. Astronaut Training Status

Astronauts Luca Parmitano (Expedition 36) and Chris Cassidy (Expedition 35) both passed their amateur radio license exams on March 8. Their call

signs should be issued within a week.

On March 9, Michael Hopkins completed his ARISS introductory course and is currently preparing for his amateur radio license exam. Hopkins is slated to fly with Expedition 37 in September 2013.

An ARISS refresher course was provided to Chris Hadfield, KC5RNJ/VA3OOG on March 11. Hadfield is currently scheduled for Expedition 34, November

2012.

4. ARRL QST Covers ARISS Activities

The American Radio Relay League (ARRL) printed a few ARISS items in its April issue of QST, which has a circulation of 156,000. Under its "Media Hits" column was a piece about ARISS and the newspaper articles and TV news stories about Adobe Bluffs Elementary School's ARISS contact

and about Foster Heights Elementary/Nelson County Area Technical Center in Kentucky. The "Inside HQ" column, a column giving ARRL 2010 high-
lights, had a paragraph on education programs including the 48 ARISS QSOs of 2010 (not NASA's fiscal year 2010), and ARISS's 10th anniver-
sary.

[ANS thanks Carol, KB3LKI, for the above information]

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SB SAT @ AMSAT $ANS-079.06

FASTRAC Satellites Separated

AMSAT News Service Bulletin 079.06
From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
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FASTRAC Satellites Separated

FASTRAC Student Program Manager Sebastian Munoz, KE5FKV, wrote, "First of all I wanted to thank the HAM community all over the world for supporting our project, your support has been incredible that we really value."

On March 15, after a few months of initial operations, FASTRAC started one of the most exciting phases of the project by separating both satellites so they can compute on-orbit real-time relative navigation solutions while both of them are freely drifting from one another.

The two Amateur Radio FASTRAC AX.25 satellites are:
FASTRAC-1 Sara Lily 437.345 MHz FM
FASTRAC-2 Emma 145.825 MHz FM

A FASTRAC Beacon decoder program is available on-line at:
http://www.dk3wn.info/software.shtml

[ANS thanks FASTRAC Student Program Manager Sebastian Munoz, KE5FKV for the above information]

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SB SAT @ AMSAT $ANS-079.07
AO-51 in Eclipse

AMSAT News Service Bulletin 079.07
From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.07

AO-51 Enters Eclipse Periods Again

AO-51 Command Station, Mark Hammond, N8MH said this week, "Eclipses are back for AO-51, and the length is increasing every day. Eclipses are now lasting about 1-2 mins per pass, and it goes up pretty fast, gaining a minute every day or two. They will become rather long in the coming weeks/months (as long as 20 mins or more as I recall)."

DK3WN's Illum program illustrates what is ahead for AO-51 operations. This free download is available at:
http://www.dk3wn.info/software.shtml

AO-51 is still running under power management in single transmitter Mode on the 435.300 MHz downlink running approximately 1.3 watts. The satellite will be OFF during eclipses (and probably right before, and soon after). You'll probably still hear the transmitter cycling OFF and ON around eclipse times. But most voice users will appreciate the stronger signals.

AO-51 be in this mode until further notice.

Keep up with the latest AO-51 Control Team News on-line at:

http://www.amsat.org/amsat-new/echo/CTNews.php

[ANS thanks Mark Hammond, N8MH for the above information]

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SB SAT @ AMSAT $ANS-079.08
UK Space Agency UKube-1 Cubesat Takes Shape

AMSAT News Service Bulletin 079.08
  From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.08

UK Space Agency UKube-1 Cubesat Takes Shape

This week the UK Space Agency revealed the instruments and experi-
ments that will be launched into orbit onboard the UKube-1 CubeSat
in early 2012.

UKube-1 - a nanosatellite that will allow the UK to test new tech-
nologies and carry out new space research quickly and efficiently
is an exciting and novel collaboration between the UK Space Agency,
industry and academia, and is envisaged as the pilot for a full
national CubeSat programme.

As well as providing a fantastic opportunity for innovative UK com-
panies and UK academics to collaborate on a national space project,
UKube-1 is also useful for training the next generation of space
engineers.

A radio subsystem provided by AMSAT-UK, derived from the FUNcube
program will provide a downlink for science education, and a
mater- ials science experiment from which school students can
receive data.
The system, funded by volunteer members and friends of AMSAT-UK,
will be integrated with UKube-1 as part of the program.

The winning payloads from the UK Space Agency's payload competition
include:

+ The first GPS device aimed at measuring plasmaspheric space weather.

+ A camera that will take images of the Earth and test the effect of
  radiation on space hardware, using a new generation of imaging sensor.

+ An experiment to demonstrate the feasibility of using cosmic radia-
  tion to improve the security of communications satellites and to
  flight test lower cost electronic systems.

+ A payload made up of 5 experiments that UK students and the public
  can interact with.

A complete list of the experiments is listed on the UKube-1 web page
at: http://tinyurl.com/5v8g2a4 (bis.gov.uk/ukspaceagency)

The FUNcube subsystem which will be included on UKube-1, will have
exactly the same functionality as the "original" FUNcube cubesat -
including a U/V linear transponder. Full details of the whole FUNcube
project can be found here http://funcube.org.uk/

[ANS thanks AMSAT-UK and the UK Space Agency for the above information]

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SB SAT @ AMSAT $ANS-079.09
ISS Reboost on March 18 Changes AOS at Your QTH

AMSAT News Service Bulletin 079.09
  From AMSAT HQ SILVER SPRING, MD.
March 20, 2011
To All RADIO AMATEURS
BID: $ANS-079.09

ISS Reboost on March 18 Changes AOS at Your QTH

Roscosmos, the Russian Federal Space Agency has announced the ISS was reboosted 3.7 km on Friday, March 18. The readjustment is necessary to ensure the best conditions to dock Russia's Soyuz TMA-21 piloted spacecraft and the U.S. Endeavor space shuttle. Russia's Soyuz TMA-21 is expected to travel to the ISS sometime in early April, while the U.S. Endeavor will blast off from Cape Canaveral on April 19.

According to the Roscosmos press release the maneuver was conducted using the two main engines on board the European Space Agency's Automated Transfer Vehicle (ATV-2), named after Johannes Kepler.

Since the orbital period changes _roughly_ 1.2 seconds for each 1 km of altitude, observers on the ground should see almost 5 seconds of change. The usual caveats about tracking program ISS discrepancies should be kept in mind until the Keplerian Elements catch up.

The Roscosmos press release can be found on-line at:
http://www.federalspace.ru/main.php?id=nid541&lang=

[ANS thanks Roscosmos and information provided by Alan, WA4SCA via the sarex@amsat.org list for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
Dee Interdonato, NB2F